



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 14882:2005**

ICS 59.080.40

**RUBBER OR PLASTIC COATED FABRICS -  
DETERMINATION OF THE STATIC AND  
DYNAMIC COEFFICIENT OF FRICTION**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 14882**

August 2005

ICS 59.080.40

English Version

**Rubber or plastic coated fabrics - Determination of the static and  
dynamic coefficient of friction**

Supports textiles revêtus de caoutchouc ou de plastique -  
Détermination des coefficients de frottement statique et  
dynamique

Mit Kautschuk oder Kunststoff beschichtete Textilien -  
Bestimmung der Koeffizienten von Haftreibung und  
Bewegungsreibung

This European Standard was approved by CEN on 1 July 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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## **Foreword**

This European Standard (EN 14882:2005) has been prepared by Technical Committee CEN/TC 248 "Textiles and textile products", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

**EN 14882:2005 (E)****1 Scope**

This test method details a method of assessing the frictional property of coated fabrics. The test consists of measuring the force necessary to move a sled on the surface of coated fabric test specimen and determining the static and dynamic coefficient of friction.

**2 Normative references**

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 845, *Cellular plastics and rubbers - Determination of apparent (bulk) density* (ISO 845:1988)

EN ISO 1302, *Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation* (ISO 1302:2002)

EN ISO 2231, *Rubber- or plastics-coated fabrics - Standard atmospheres for conditioning and testing* (ISO 2231:1989)

EN ISO 2286-1, *Rubber- or plastics-coated fabrics - Determination of roll characteristics - Part 1: Methods for determination of length, width and net mass* (ISO 2286-1:1998)

EN ISO 5084, *Textiles - Determination of thickness of textiles and textile products* (ISO 5084:1996)

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system* (ISO 7500-1:2004)

EN ISO 12947-1:1998, *Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 1: Martindale abrasion testing apparatus* (ISO 12947-1:1998)

**3 Terms and definitions**

For the purposes of this European Standard, the following terms and definitions apply.

**3.1****coefficient of static friction ( $\mu_s$ )**

coefficient calculated from the ratio of the force necessary to cause the tangential separation of two stationary surfaces to the perpendicular force acting upon the two surfaces

**3.2****coefficient of dynamic friction ( $\mu_d$ )**

coefficient calculated from the ratio of the force necessary to maintain a constant velocity between two surfaces in contact to the perpendicular force acting upon the two surfaces

**4 Principle**

A sled is attached to a strain gauge and is linked to an autographic recording device. The sled is caused to move against the test specimen which is either rigidly mounted on a horizontal bed or the base of the sled. The force to initiate the movement of the sled and thereafter maintain a constant velocity is measured.

From specific forces, the coefficients of friction (static and dynamic) are calculated.

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